



In the Claims:

Claims 1-32 have been withdrawn.

33. (Original) A method for processing mass spectrometry data, said method comprising:
receiving a request to perform an operation utilizing at least a portion of transformed data resulting from a transformation of raw data generated by a mass spectrometer, the transformed data having a hierarchical data format for use at multiple resolutions;
accessing the transformed data;
selecting parameters to use for a selected resolution of the transformed data;
producing a transformed dataset at the selected resolution from the transformed data as a function of the selected parameters; and
performing the requested operation on the transformed dataset at the selected resolution to generate a result for the operation based on the transformed dataset at the selected resolution in response to said receiving the request.

34. (Withdrawn)

35. (Original) The method according to claim 33, wherein said receiving the request includes receiving a search request for transformed data having certain properties.

36-40 (Withdrawn)

41. (Original) A system for processing mass spectrometry data, said system comprising:
a storage unit operable to store transformed data resulting from a transformation of raw data generated by a mass spectrometer, the transformed data having a hierarchical data format for use at multiple resolutions; and

a processing unit in communication with said storage unit and configured to:

receive a request to perform an operation utilizing at least a portion of transformed data resulting from a transformation of raw data generated by a mass spectrometer, the transformed data having a hierarchical data format for use at multiple resolutions;

access the transformed data;

select parameters to use for a selected resolution of the transformed data;

produce a transformed dataset at the selected resolution from the transformed data as a function of the selected parameters; and

perform the requested operation on the transformed dataset at the selected resolution to generate a result for the operation based on the transformed dataset at the selected resolution in response to receiving the request.

42. (Withdrawn)

43. (Original) The system according to claim 41, wherein the operation includes searching for transformed data having certain properties.

44-68. (Withdrawn)

69. (New) The method according to claim 33, further comprising generating the transformed data having a hierarchical data format utilizing a wavelet transform.

70. (New) The system according to claim 41, wherein said processing unit is further configured to generate the transformed data having a hierarchical data format utilizing a wavelet transform.